Managerial Skills and Small Business Start-ups in the Rural Food Sector

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Summary

The research is intended as an initial study to address managerial skills of small business start-ups to minimise small-business failures. Primary data from 126 respondents have been collected, consisting of stakeholders in the rural food sector in North Wales. Primary data was analysed by using mixed-methods research. The findings will be employed to design an online syllabus and virtual learning environment (VLE) to support the small-business community in the rural food sector including start-ups in North Wales. This research has received funding through the Welsh Government Rural Communities –Rural Development Programme 2014-2020 (Cadwyn Clwyd), which is funded by the European Agricultural Fund for Rural Development and the Welsh Government.

Introduction

The research is intended to enhance managerial skills of small business starters and owners and minimise small business failures in the food sector. Managerial skills are defined as skills required by small business owners and starters to compete successfully in the face of a highly competitive environment (Whetten and Cameron, 2010; Kahneman, 2012; Assarlind and Gremyr, 2016). These skills encompass a variety of skills: firstly, human relationship and communication skills for dealing successfully with clients; secondly, marketing skills for generating more sales and forecasting production capacity; thirdly, production skills for maintaining product quality as well as managing inventory in a lean and just-in-time manner; fourthly, financial skills for maintaining cash flows, managing tax planning, and avoiding unnecessary expenses (cost reduction initiative); fifthly, digital skills for being able to interact with clients through social media initiatives; and other computing skills.

Previous research (Shabir and Robert, 2016; Crutzen, 2010) indicates that about half of small businesses fail during their first year of operation, with the majority of small businesses failing within the first five years. Most of the failures happen because a lack of managerial skills leads to insufficient cash inflows, hence, bankruptcy (Binsardi, Green and Jackson, 2014; Justino and Robertson, 2015; Batocchio, Ghezzi and Rangone, 2016). This research pioneers an initial study to address managerial skills of small business start-ups in the area of North Wales to minimise small-business failures. Although there have been many studies on small business failures, no study has hitherto investigated managerial skills and small business start-ups in the rural food sector in North Wales (Hyder and Lussier, 2016; Binsardi, Green and Jackson, 2014).

Research relating to business failures has been both abundant and widely documented in related literature (Shabir and Robert, 2016; Crutzen, 2010; Justino and Robertson, 2015; Batocchio, Ghezzi and Rangone, 2016). Accordingly, this literature can be methodically used as a guideline for designing a survey questionnaire (with closed-ended and open-ended questions) and to direct this analysis of the topic. However, although existing investigations in this field may give some answers, primary data still needs to be collected. There are two reasoned justifications for collecting primary data for this study, which are as follows:

- Firstly, although the literature may provide direction and answers, the collection of new data and the creation survey questionnaires are defensible, because all previous studies were completed in areas outside of North Wales, such as the USA and Europe; however, to date, no research has been undertaken within this geographical context;
- Secondly, the causes behind agricultural business failures in North Wales differ from those in other sectors (non-agriculture), and in relation to other countries, for a number of

reasons, including because they have dissimilar economic infrastructures and support systems from the government, as well as divergent business networks and cultural/sociological domains.

The first stage. The research consists of three stages. During the first stage of the project, it will undertake survey questionnaires to investigate broadly why most small business owners and starters in the food sector fail during the early years of their business operations (the first research question).

The second stage. During the second stage, the findings from the first stage will be used to design interview questions in order to explore in details what types of managerial skills are required to a significant degree in order to survive in small business ventures (the second research question) by interviewing selected respondents. Hence, there are two types of primary data (interview texts and survey questionnaires). The survey questionnaire will be examined by employing statistical (quantitative) analysis, while the interview texts will be analysed using thematic (qualitative) analysis. It is intended that employing both the qualitative and quantitative analyses will result in more robust findings, as is indicated by relevant literature (e.g. Bryman and Cramer, 2005; Somekh and Lewin, 2005; Binsardi and Green, 2012).

The third stage. Initially in the first and second stages, this study will employ a simple, independent analysis, such as the chi-square test, to analyse the findings descriptively; for example, this can be done by relating the demographics and other variables linked to business failures. It is intended that this research could be used to guide further investigations into deeper quantitative analysis using structural equation modelling. This is a multivariate statistical means of analysis, which is utilised to scrutinise the structural relationship between measured variables and latent constructs in the capturing of business failures and their complex interactions with support systems, network support, risk, economic incentives and other variables. As a conference proceeding, this paper discusses only the first and second stages of the research because of the maximum paper length.

A successful economy is built by successful entrepreneurs. A developed country like the USA is the place where successful world entrepreneurs are born. For example, Steve Jobs, Steve Wozniak and Ronald Wayne founded Apple Computer Inc. in April 1976. While, Travis Kalanick and Garrett Camp founded Uber Technologies Inc. in March 2009 in San Francisco. Recent research (Stillman, 2016), based on 16,500 people surveyed around the world on 65 different national attributes of successful entrepreneurs, reveals the top three countries that cultivate world-class entrepreneurship. These are indicated in Table 1.

Table 1
Three countries with top world-class entrepreneurs

Ranking	Countries
First	Germany
Second	Japan
Third	United States

Source: Stillman (2016)

Although the USA produces accomplished entrepreneurs, the best countries for nurturing and developing world-class entrepreneurship are Germany and Japan, followed by the USA in third (Table 1). Germany has been successful in facilitating world-class entrepreneurs because the country's conducive infrastructure nurtures entrepreneurial growth. For example, most German students participate in entrepreneurial internships ('praktika' in German language) before graduation. This experience is vital because students learn real-life business when they are still

studying, which means that they can bridge the gap between theoretical knowledge and the real-life application of business theory. In addition, Germany has a long tradition of being friendly to small and medium-sized enterprises (SMEs) and is recognised worldwide for *precision manufacturing*.
Japan, on the other hand, is well known for its *technological innovation and robotics*, earning second place in the world for entrepreneurships (Stillman, 2016). Unfortunately, a developed country such as the UK was not on the top three list. In fact, so many start-up companies and entrepreneurs in the UK fail during their developmental years, particularly companies involved in the food industry sector. This is the rationale in investigating start-up companies. Correspondingly, this paper intends to produce original contributions in researching the managerial skills required to successfully run small businesses in the food industry sector, so that, by reducing the risk of failure and increasing the chance of success, the food industry will be able to produce successful entrepreneurs. The objective of this research is to investigate the failure of small businesses within the food industry, as well as enhance the competitiveness of small business owners and starters within the rural food sector in North Wales.

Previous research investigates small business failures by looking at mere individual factors. However, using the most recent framework (such as Mihajlovic et al., 2015), all internal and external factors are considered. For examples, individual factors consist of the abilities and personal characteristics of entrepreneurs, while non-individual factors consist of both internal and external factors. Survey questionnaires consist of demographic questions and main research questions. The survey questionnaires below were piloted to access the survey clarity, reduce ambiguity and decrease the number of relevant questions so the respondents would have more time to focus on relevant questions.

Research Methodology

The research has collected primary data from 126 respondents. However, since some answers were incomplete, after cleansing invalid responses, only 121 responses can be used. The respondents were given a website portal so that they were able to complete the survey electronically at their own pace. The survey collected both quantitative data (multiple-choice answers) and qualitative data (essay or open-ended answers). However, not all respondents were able to participate electronically using the online survey. Three respondents chose to complete the survey traditionally by using a face-to-face meeting, so transcribed texts were obtained directly from them.

The overall respondents were stakeholders are associated with the food industry. They were selected by employing both chain referral and convenience sampling techniques. Chain referral sampling can be defined as a form of non-probability sampling, in which respondents are recruited by the initial respondent from amongst their acquaintances (Biernacki and Waldorf, 1981; Lewis-Beck, Bryman and Liao, 2004). Subsequent respondents then recruit others from their network of colleagues and acquaintances, and this process of selecting additional respondents continues until the maximum number of samples required for the study is reached. While, convenience sampling is also a form of non-probability sampling, in which the respondents are selected based on their ease of availability or convenience for a survey (Lewis-Beck, Bryman and Liao, 2004; Voicu, 2011). Both sampling techniques (chain referral and convenience sampling) were implemented because this study aimed to optimise the number of responses.

Being repeatedly asked to undertake surveys is a very common feature of modern life, and so it can be difficult to find an optimal number of respondents. For example, according to Lavrakas (2008), Saris and Gallhofer (2014) and Thee-Brenan (2014) almost every day, people receive a letter requesting their participation. It is possible that the large number of requests might have caused

'survey fatigue' and a disinclination to participate in surveys. Therefore, in order to obtain more responses, this study posted the survey via a website portal on http://small-businesses.uk Using an online presence for the survey also enabled electronic communication with partner food organisations, food manufacturers and food companies, individuals and experts in Wales. These methods allowed potential respondents to answer the survey online at their convenience. Apart from online engagement, attempts were also made to approach respondents conventionally by giving them a hard copy of the survey through face- to-face data collection.

The first part of the findings (the respondent's demographics and cross-tabulation statistics) examines multiple-choice questions by using statistical analyses, such as cross-tabulation, descriptive and inferential statistics. While the second part of the findings discusses the findings of the qualitative data. To analyse the qualitative data, thematic analysis was employed. Literature (Hayes, 1997; Lewis- Beck, Bryman and Liao, 2004) indicates that thematic analysis is a comprehensive methodology to analyse communicated texts and identify evolving themes from the raw data, which is its first benefit. The second benefit of thematic analysis is that it can portray a structural relationship between the themes in the communicated or transcribed texts. Apart from extracting information and displaying a thematic relationship, the third strength of thematic analysis is the ability to develop a model from the texts. In order to examine the relationship and develop a model, NVivo software package were used. Since this study analysed communicated or transcribed texts, thematic analysis was the most suitable method to uncover themes in the texts and identify a relationship between them (Braun and Clarke, 2019; Creswell, 1994).

Descriptive Statistics

Question 1 of the survey (Table 2) asked the respondents what types of food businesses they manage. Among 121 respondents, 52.1% were based in service sectors such as cafes, canteens, restaurants, and other food outlets, while 44.6% were based in the manufacturing sector.

Table 2 – Types of food involvement
Question: What type of food related business do you manage?

	Frequency	Percent	Cumulative Percent
Manufacturing	54	44.6	44.6
Service	63	52.1	96.7
Agriculture	4	3.3	100.0
Total	121	100.0	

Agricultural businesses comprised of only 3.3% of the total respondents' involvement: only four respondent companies originated from the agriculture sector. Therefore, the views expressed in this paper are mostly associated with those of service and manufacturing firms in the food industry (44.6% and 52.1%, respectively).

The next question (Question 2 and Table 3) dealt with the respondent companies' statuses in terms of how long the businesses had been running. More respondents came from food businesses that had been running for greater than five years (52.9% or 64 respondents) than from short-lived businesses. It was useful to have a large proportion of respondents from established food businesses, since they could offer a more experienced view of their industry than those who had only been trading for a short time.

Table 3 – The respondents' length of service in the food industry
Question: How long has the business been running?

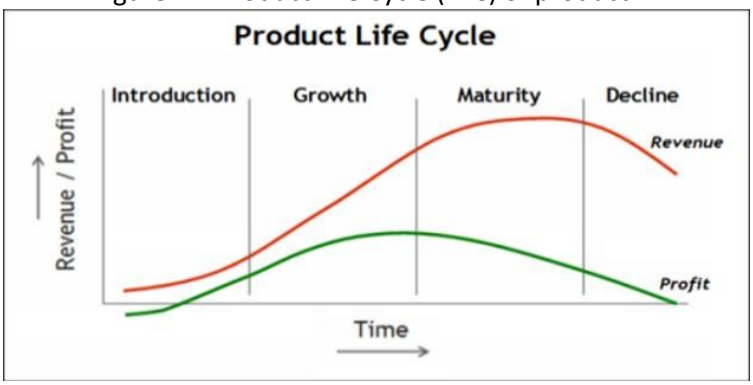
	Frequency	Percent	Cumulative Percent
Less than a year	16	13.2	13.2
1–2 years	19	15.7	28.9
3–4 years	22	18.2	47.1
5 years or more	64	52.9	100.0
Total	121	100.0	

The other groups of respondents have been in the food industry for differing periods: 18.2% between three and four years, 15.7% between one and two years, and 13.2% for less than one year.

Question 3 (Table 4) dealt with the company's stage of product lifecycle (PLC). Most respondents (59.5%) considered their food businesses to be in the growth stage, while 22.3% of respondents thought that their businesses were in the stage of decline because of a saturated market.

Product Life Cycle (PLC) basically describes the stages of a product over its lifetime from the introductory stage, through growth and maturity to decline (Table 4). PLC follows the chronology of a product in the competitive market from the introduction stage (Stage 1), in which a company launches its product for the first time and during which there is relatively little competition. During this stage, the company's sales revenue and profit start to increase.

Figure 1 – Product Life Cycle (PLC) of product



Source: Coldwell (2018)

The second stage is the growth stage when sales grow at an increasing rate because customers accept the product's unique selling point (USP). During this stage, the company's sales revenue and profit grow at an increasing rate. The third stage is maturity, in which sales growth slows down because the market is saturated with competitors' similar products (Stage 3). Company sales revenue still increases but at a decreasing rate and the company's profit (for that particular product) starts to decline. The final stage (Stage 4) is the decline stage, in which sales start to decline because the product is no longer needed by customers. The product becomes obsolete and loses its USP, as many new competing products have entered the market, which results in the old product no longer being attractive. At this point, the company's sales revenue declines and profit becomes negative; a negative profit could be classed as a loss.

Table 4 – The stages of PLC
Question: What is the stage of the business (product life cycle)?

	Frequency	Percent	Cumulative Percent
Introduction	22	18.2	18.2
Growth	72	59.5	77.7
Maturity	27	22.3	100.0
Total	121	100.0	

A minority of respondents (22.3%) indicated that their food businesses were located in the first stage of PLC, while the majority revealed that their business were operating in the growth and decline stages, reflecting the fierce competition of the food business. This finding has strategic implications for starting new businesses in the food industry, in that competition is very fierce and business start- ups need to be equipped to deal with challenging market conditions. Question number 4 asked the respondents how many staff were working at their company. The findings (Table 5) reveal that 33.9% of the respondents work for small businesses with one to five staff.

Table 5 – The number of staff employed in the company
Question: How many staff does the business have?

	Frequency	Percent	Cumulative Percent
1–5 staff	41	33.9	33.9
6–10 staff	28	23.1	57.0
11–20 staff	34	28.1	85.1
21–50 staff	18	14.9	100.0
Total	121	100.0	

The second largest group of respondents (28.1%) worked for, or were associated with, medium-sized food companies with 11 to 20 staff; while 14.9% of respondents worked for, or were associated with, larger food companies. In terms of the respondents' ages (Table 6), the findings indicate that most respondents (62.8%) were aged between 36 and 50 years old, while 23.1% of the respondents were greater than 50 years old. The remaining respondents (8.3% and 5.8%) were aged between 26 and 35 years, and 18 and 20 years.

Table 6 – The respondents' ages
Question: How old are you?

	Frequency	Percent	Cumulative Percent
18 - 20 years old	7	5.8	5.8
26–35 years old	10	8.3	14.0
36–50 years old	76	62.8	76.9
More than 50 years old	28	23.1	100.0
Total	121	100.0	

In terms of the respondents' experiences, 29.8% had two to three years' experience in the food industry, 28.9% had more than seven years' experience and 24.8% reported four to six years' experience. These levels of experience in the industry are considered encouraging, because all respondents had been expected to have come from small business start-ups and therefore have very limited experience.

Table 7 – The respondents' years of experience in the industry
Question: How many years of experience do you have in the business?

	Frequency	Percent	Cumulative Percent
One year or less	20	16.5	16.5
2–3 years	36	29.8	46.3
4–6 years	30	24.8	71.1
7 years or more	35	28.9	100.0
Total	121	100.0	

As can be seen in Table 8, the majority of respondents (57 percent) possess an undergraduate degree. Additionally, 26.4 percent of those who responded were educated to postgraduate degree level, while 14 percent received high-school level qualifications. Finally, 3 percent of those who responded stated they had no formal education. In lieu of formal qualifications they may have received training, gained practical work experience or have received a form of non-traditional education such as practical or professional online training. Less traditional methods of training are widely accepted in the current educational system (Busteed, 2019; Deming, Lovenheim and Patterson, 2016; Volery and Lord, 2000).

Table 8 – The educational level of respondents
Question: What is your highest qualification?

	Frequency	Percent	Cumulative Percent
No formal education	3	2.5	2.5
High school	17	14.0	16.5
Undergraduate degree	69	57.0	73.6
Postgraduate degree or above	32	26.4	100.0
Total	121	100.0	

Following the findings on respondents' educational levels, Table 9 reveals their area of study or speciality. The majority of respondents (43 percent) possess a social science and education background in areas such as: anthropology, economics, management, history, political science, psychology and sociology. Additionally, 33.9 percent of those who responded have studied technology, mathematics, engineering and computing. Finally, a small number of those who responded (23.1 percent) possess a background in the arts and humanities. This area of study includes subjects such as ancient and modern languages, literature, philosophy, history, human geography, law, politics, religion and art.

Table 9 – Respondents' areas of study
Question: What is your educational background?

	Frequency	Percent	Cumulative Percent
Arts and humanities	28	23.1	23.1
Social science and education	52	43.0	66.1
Technology, mathematics, engineering & computing	41	33.9	100.0
Total	121	100.0	

According to the previous research (Conlin, 2019) many successful entrepreneurs work more than 50 hours per week. This would mean a workday of between ten and 11 hours. Table 10 illustrates the respondent's answers to Question 9: 'How many hours do you work each day?'.

Table 10 – Respondents' daily working hours
Question: Respondents' daily working hours

	Frequency	Percent	Cumulative Percent
2 hours or less	7	5.8	5.8
3–5 hours	15	12.4	18.2
6–8 hours	86	71.1	89.3
9 hours or more	13	10.7	100.0
Total	121	100.0	

The majority of respondents (71.1 percent) work between six to eight hours per day. This figure is followed by 10.7 percent who work more than eight hours per day. Additionally, 12.4 percent work between three to five hours per day, while 5.8 percent of respondents work for two hours (or fewer) per day. Those who work fewer hours may be food consultants or have another role within the food industry but they do not work full-time hours in the operation or manufacturing line of the food businesses.

Question 11 concerns marital status. Marital status (Question 10 and Table 11) is of importance as many of those who responded are food entrepreneurs or small business owners. This study aims to explore the practicalities of running a new small business, including both successes and failures. The successful launch of a new small business requires a major time commitment. Trevino (2018) and Harris and Wheeler (2005) have revealed that this can put considerable strain on the relationships of those who are either single or married. There is a clear link between business success or failure and the marital status of the entrepreneur.

Table 11 – Respondents' marital status
Question: What is your marital status?

	Frequency	Percent	Cumulative Percent
Single	32	26.4	26.4
Married	23	19.0	45.5
Cohabitation	66	54.5	100.0
Total	121	100.0	

The majority of those who responded (54.5 percent) are not married but live with a partner and therefore possess cohabitation status. 26.4 percent stated that they were single and 19 percent of them indicated that they were married. The results (Question 11 and Table 12) indicate that 55.4 percent of respondents were female, and 44.6 percent of the respondents were male. This indicates that the respondents were equally represented in terms of gender.

Table 12 – Respondents' gender
Question: What is your gender?

	Frequency	Percent	Cumulative Percent
Male	54	44.6	44.6
Female	67	55.4	100.0
Total	121	100.0	

Table 13 – Respondents' characteristics
Question: How would you describe yourself?

	Frequency	Percent	Cumulative Percent
I am staff, I have been working for the food industry for several years.	53	43.8	43.8
I am an entrepreneur.	12	9.9	53.7
I own a small (food) business.	17	14.0	67.8
I am (expert) individual from the food industry.	39	32.2	100.0
Total	121	100.0	

Most of the respondents (43.8 percent) were workers or staff who have been working in the food industry for several years. The second set of respondents (32.2 percent) were individuals or experts who work within the food industry. The third set (14 percent) were small business owners, while the remaining respondents (9.9 percent) were entrepreneurs. Overall, the respondents came from a variety of areas within the food industry. They are staff who have been working within the food industry for years, expert individuals within the food industry, small food business owners and entrepreneurs.

Inferential statistics

This section focuses on cross-tabulation analysis to analyse the relationship between variables in the survey or items in the questionnaires, in which Chi square statistics were computed. Cross-tabulation is also known in the literature (Hollander and Wolfe, 1999; Higgins, 2003) as a contingency table, which is known to examine whether the relationship between variables is statistically

significant or not.

By relating the respondent's demographic characteristics, such as gender, education and length of experience in the business, with the main research questions, such as business resilience, risk-taking and business growth, strategic implications for small-business start-ups can be drawn accordingly. For example, if the relationship (between educational achievement and business growth) were significant, the pedagogic, strategic implications would be to continually update small business start-ups on critical skills, such as digital marketing, just-in-time production, health and safety and other. This section discusses only the significant variables. Insignificant findings are not reported. However, overall, computer SPSS data and outputs will be evidenced in the appendix for possible repeat estimation.

Table 14 – Relationship between length of experience and resilience ability

		I recover from (business) failures very quickly (resilience)				
		Strongly disagree	Neutral	Slightly agree	Strongly agree	Total
How many years of experience do you have in the business?	**One year or less**	7	6	7	0	20
	2–3 years	7	4	21	4	36
	4–6 years	7	0	23	0	30
	7 years or more	0	9	12	14	35
Total		21	19	63	18	121

Table 14 shows a cross-tabulation or a contingency table between the respondent's (years) length of experience in the businesses and the respondent's ability to recover or the respondent's resilience ability. Figure 2 reveals that the respondents who have more business experience, from 4–6 years to 7 years, tend to recover reasonably (moderate resilience levels) after failures or challenging situations ('slightly agree'), while the respondents with the most business experience (seven years or more) tend to recover even more quickly; they have vigorous resilience levels ('strongly agree').

Figure 2 – Respondent's resilience level

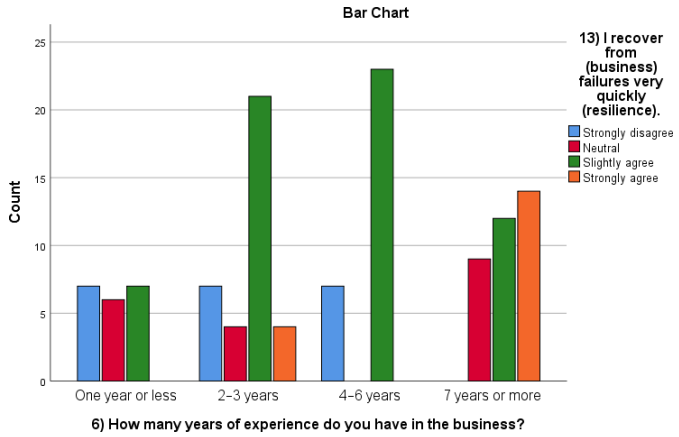


Figure 2 reveals that the respondent's resilience level is relatively high (orange colour – 'strongly agree'; green colour – 'slightly agree'), in which they have more than seven years' experience. The respondents who have fewer years of experience (one year or less, 2–3 years) do not tend to have a good resilience levels (blue colour – 'strongly disagree').

These resilience-level findings were significant at less than a one-percent significant level (α) with a Pearson Chi-Square equalling 50.037 (Table 15, the first column). The figure of less than a one-percent significant level can be seen in the last column titled Asymptotic Significance (2-sided) of

0.000. The findings of the resilience levels indicate that the capacity to recover from difficulties depends on the person's length of experience in the business. However, apart from the respondent's personal experience, the literature (Armitage and Conner, 2001; Bonanno, 2005) also reveals that resilience levels also depend on additional factors, such as the capacity to make realistic business plans, confidence in individual strengths and abilities and the strong capacity to manage feelings.

Table 15. Cross-tabulation statistics (Chi-Square Tests)

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	50.037a	9	.000
Likelihood Ratio	61.782	9	.000
Linear-by-Linear Association	15.489	1	.000
N of Valid Cases	121		

These additional factors can be enhanced by attending education and training workshops to increase the respondent's critical skills and self-confidence as well as prepare realistic business plans. Apart from the discussion on the respondent's resilience levels, the literature (Drucker, 1990) reveals that risk-taking is a part of successful small businesses. These risk-taking characteristics should be embedded in small-business owners and start-up entrepreneurs because if they are afraid to take risks, this avoidance will eradicate small businesses before they have had a chance to grow. However, entrepreneurs should also balance and replace excessive risk-taking with more educated risk-taking by intensely analysing their competitor's and their customer's behaviour, risk analysis, new product development and innovation. These educated risks involve a series of strategic steps that allow small-business entrepreneurs to reasonably predict the odds of success. Regardless of the risk-taking issues, the literature (Drucker, 1990; Kuratko, 2017) indicates that successful small businesses got to where they are because they were willing to take educated risks, particularly by offering innovation and new product development (NPD) with a relevant unique selling point (USP).

Table 16. Relationship between length of businesses and risk taking

		Risk taking is the most important aspect in running a successful business.				
		Strongly disagree	Neutral	Slightly agree	Strongly agree	Total
How long has the business been running?	**Less than a year**	6	0	10	0	16
	1–2 years	4	7	3	5	19
	3–4 years	0	4	6	12	22
	5 years or more	19	25	17	3	64
Total		29	36	36	20	121

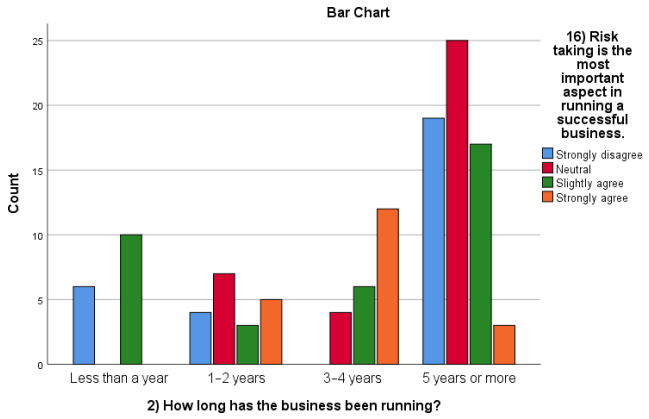
The findings (Table 16 and Figure 3) indicate that the businesses that have been running for five years or more disagree with risk-taking (19 – Column 1). These findings are plausible since most established businesses have already established product portfolios, which are well known in the market with their USP. Correspondingly, they do not want to take too much risk to introduce new product, instead they focus more on developing their branding and market share (Kapferer, 2012; Rumelt, 2017).

Table 17 - Cross-tabulation statistics (Chi Square)

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	51.060a	9	.000
Likelihood Ratio	57.022	9	.000
Linear-by-Linear Association	1.156	1	.282
N of Valid Cases	121		

The findings indicate a significant relationship between the length of the business and risk-taking, where α equals less than 0.01% (Table 17, the last column, 0.00, Asymptotic Significance, 2-sided). That is, this research has more than 99.99 percent confidence levels. Apart from α, a Pearson Chi-Square is also found to be 51.060 (Column 2, Table 17).

Figure 3 - Relationship between length of running business and risk-taking



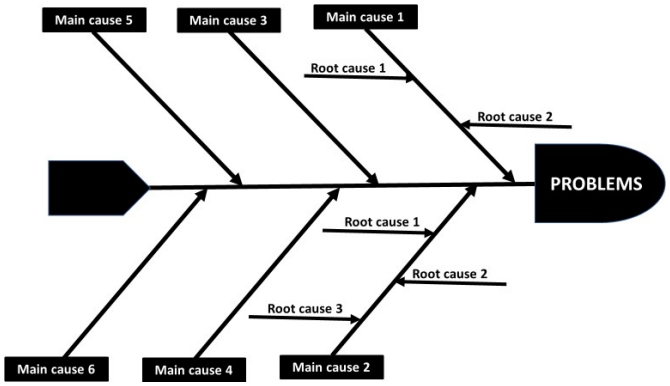
Similarly, the businesses that have been running for more than five years (Figure 3 – blue colour) disagree strongly about risk taking. While the businesses that have been running for less than five years (Figure 3 – orange colour) agree strongly about risk taking.

Several cross-tabulations were attempted, but the findings were not relevant and not significant and were not reported in this paper. It is intended that these preliminary findings can be used to design an offline and online syllabus and strategic implications for small business start-ups to minimise failures.

Thematic Analysis

This section discusses the findings from the second stage to explore in details what types of managerial skills are required to a significant degree in order to survive in small business ventures. Several steps were undertaken to implement thematic analysis. After reading and getting familiar with the raw qualitative data collected, preliminary open codes were assigned to describe the content of the communicated texts. Following the preliminary codes, themes were developed and compared across all the communicated texts from the different respondents. The themes can be displayed in a fishbone diagram below (Figure 4).

Figure 4 – Fishbone Diagram (Theoretical)



Adapted from: Ishikawa (1968)

A fishbone diagram is also known in the literature (Ishikawa, 1968) as a cause-and-effect or Ishikawa diagram. It is a diagrammatic tool for detecting the potential causes of a problem as well as identifying its root causes. The diagram is valuable in solving any business problem (Ciocoiu and Illie, 2010; Ishikawa, 1968), which can be applied to issues for small business start-ups in the food sector. A fishbone diagram is able to solve problems comprehensively and offer a solution in a more structured way. For example, after collecting problems from the communicated texts, the diagram classifies potential causes or main problems according to their level of importance in a fishbone hierarchy. The shape of the diagram is similar to the skeleton of a fish. The diagram differentiates between root causes and main problems as such that a fishbone diagram can solve any managerial problem in a more structured way.

Several phrases appeared in the communicated or transcribed texts, such as 'incorrect product', 'no unique selling point' (USP), 'lacking new customers', 'poor customer service', 'no repeat customers', 'wrong target market', 'incorrect segmentation', 'misunderstanding of target markets'. These could be classified as problems with marketing skills (Figure 4). Marketing skills are a prerequisite for small business start-ups because these are the most important skills to master in any business (ranking 1). Marketing skills help small business start-ups to generate new clients and produce repeat buyers, so that a new company can successfully sell foods, products or services. Without marketing skills, any business would not survive because there would be no customers, regardless of how good a company's other skills are, such as financial and production skills. For example, although a new start- up may have outstanding financial skills, like robust accounting systems or a financial support mechanism, these would be useless if the business has no clients nor new customers (Blois, 2000; Kotler et al., 2017). These are generated by using marketing skills, which consist of several critical topics, like segmentation skills, new product development, USPs, social media marketing and digital strategy.

In relation to aspects of finance and accounting (ranking 2), several keywords also appear in the transcribed texts such as 'insufficient funds for operations is the most common reason for failure', 'increasing costs while reducing revenues', 'cashflow problems and a lack of accounting strategy are the factors contributing to unsuccessful food businesses', 'failure rates are due to a low start-up capital', 'most small businesses fail because of a lack of planning for funding to support opportunities for growth', 'failure to control cashflow by allowing customers too long to pay', 'too much unnecessary expenses, which are not relevant to core business', 'new start-ups spend too much money', 'cash flow problems can arise from poor sales or a lack of investors' and 'because of running out of cash'. Research (Jensen, 2015) also indicates that most start-up companies struggle during the initial period of trading for cashflow to finance business growth (cash hungry). Hence, financial skills are critical for small business entrepreneurs to acquire enough funds from customers (cash inflows) to pay employees and suppliers (cash outflows) during the start-up period, to sustain the business long-term. Financial skills also involve forecasting financial position, networking to obtain funding from the government such as a direct grant, equity finance or a soft loan, and poor capital budgeting for capital resources at lowest cost to fund the start-up business.

The respondents also mentioned the following keywords (ranking 3) and sentences several times in the transcribed texts: 'small business owners are lacking in knowledge of the health and safety aspects of food products', 'incorrect product specification being sold in the market', 'lack of planning in the product development stages', 'lack of food safety knowledge and implementation', 'lack of regulatory knowledge and understanding of food hygiene' and 'final products do not meet customer needs' amongst others. The keywords (understanding, knowledge and implementation) are particularly critical for small business start-ups, because selling food is different from selling other products. Selling food involves complex legal requirements, food safety considerations, and meeting food hygiene and other standards (Lazaro, Kapute and Holm, 2019; Lyons et al., 2016). Food safety

standards are vital to all consumers, food businesses and retailers to give the public confidence that the food they buy will be safe. All these issues are dealt with by applying production skills. Accordingly, all small business start-ups should master production skills in order to survive in the food industry. There are many examples within the food service sector where firms have closed down because they failed to conform with relevant legal and foods safety regulations (Lyons et al., 2016).

The respondents also indicated several words (ranking 4) in the communicated texts such as 'poor planning and poor project management as one of the barriers for small business start-ups', 'the application of incorrect business models', 'poor resource management', 'lack of new technologies and poor business models', 'no planning for funding to support opportunities for growth', 'rushing into the market too soon without thinking tactically', 'building a wrong empire' and 'ignoring networks and support from the government'. Overall, these keywords can be classified as management skills. Management skills can be defined here as specific attributes that small business owners should possess in order to run a small business successfully (Ihua, 2009; Kirsten, 2013). Robust management skills are critical to success in the hypercompetitive food market. Small-business owners hold the key to leading employees in the right direction in applying correct business models, in networking with fellow businesses, the government, and suppliers, as well as producing for final customers.

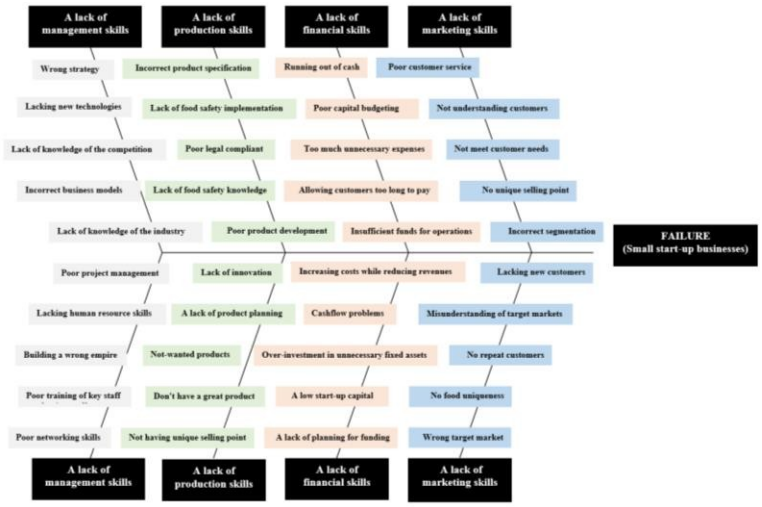
Summary and conclusion

The first part of the findings discusses the respondent's demographics and cross-tabulation statistics using statistical analyses. The majority of respondents are associated with those of service and manufacturing firms in the food industry, while the minority of respondents are associated with agricultural businesses. In terms of product life cycle, the majority of respondents revealed that their business were operating in the growth and decline stages, while the minority of respondents revealed indicated that their businesses were located in the first stage of PLC. The majority of respondents work between six to eight hours per day. Cross-tabulation statistics reveals that the respondents who have more business experience (four to seven years), tend to recover reasonably after failures, while the respondents with the most business experience (seven years or more) tend to recover even more quickly. The findings also reveal that the businesses that have been running for five years or more disagree with risk-taking, in which they do not want to take too much risk, instead they focus more on developing their market share, Lastly, descriptive statistics reveal that the minority of respondents indicated that their food businesses were located in the first stage of PLC, while the majority revealed that their business were operating in the growth and decline stages, reflecting the heavy competition of the food business.

The qualitative data for this paper contained 121 communicated or transcribed texts. Using the fishbone diagram, it can be concluded that the success of small start-up businesses in North Wales can be facilitated and enhanced by providing small-business entrepreneurs with these skill sets in marketing, finance, production and management. The qualitative data has been subjected to thematic analysis to find themes or patterns within the transcribed texts. The themes then can be employed within the fishbone diagram below (Figure 5), in which the problem is defined as business start-ups failure in the food industry.

In Figure 5, Cause 1 indicates a lack of marketing skills, Cause 2 shows a lack of financial skills, Cause 3 indicates a lack of production skills and Cause 4 shows a lack of management skills. In order of importance, these skill sets are marketing skills, because without them, there would be no customers (including new and repeat customers); financial skills, production skills and management skills.

Figure 5 – Fishbone Diagram (Empirical)



The findings will be used to design an online syllabus and virtual learning environment (VLE) for would- be food business start-ups in North Wales. In order to design and prepare a syllabus and workshop curriculum effectively, collaboration is required between the academic staff (focusing on marketing and financial skills, which are academic based modules) and practitioners from the food industry (focusing on production and management skills, which are applied modules). Collaboration is required because some applied skills such as networking with the government and production skills (relating to legal regulation, food hygiene and safety, etc.) can be delivered more robustly by practitioners. Once a syllabus and workshop curriculum has been designed, training workshops can be arranged to support the small-business community including start-ups in North Wales. This will enable them to be more prepared and better equipped with the robust skills required to venture into business in the food industry.

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